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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/618,950	07/19/2000	Brian Lo Bue	CISCO-1608	2135
49715	7590	08/25/2005	EXAMINER	
THELEN REID & PRIEST LLP			STRANGE, AARON N	
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P.O. BOX 640640			PAPER NUMBER	
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DATE MAILED: 08/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/618,950

Applicant(s)

LO BUE ET AL.

Examiner

Aaron Strange

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 May 2005.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 and 31-42 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-12 and 31-42 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 5/25/2005 have been fully considered but they are not persuasive.

2. With regard to claim 1, and Applicant's assertion that "Ben-Dor et al. does not teach a universal serial bus (USB) remote host control driver comprising a memory for storing the network address of each of one or more USB device adapters and for storing an identification of each USB device connected to each of said device adapters", the Examiner respectfully disagrees for at least the reasons discussed below.

In alleged support of this assertion, Applicant states "Ben-Dor et al. indicates that 'It is the responsibility of the RPS to keep an updated mapping of globally unique identifiers to local bus identifiers. Thus, it is the individual device adapters of Ben-Dor et al. that store the mapping information.'" However, the RPS maintaining a mapping between globally unique identifiers and local bus identifiers has little to do with storing an identification of each USB device connected at the remote host control driver. This mapping merely allows the RPS to accept data at a globally unique address and forward it to the appropriate USB device on the local bus. The globally unique identifiers are known and stored by the remote control host driver. (Par 63-64 and 156-172).

With regard to Applicant's assertion that "the reference says nothing about storing an identification of each USB device connected to each of said device adapters", the Examiner respectfully disagrees. Ben-Dor clearly discloses that RPS announcement

packets are sent to the remote host control driver (multicast to interested hosts)(Par 159). Ben-Dor further discloses that these packets may include topology maps of the local USB bus (Par 171). By virtue of listening to these packets alone, there is a memory present in the remote control host driver that stores an identification of each USB device connected to each device adapter while it is being read. Furthermore, in order to remember the devices for communication in the future, the remote host control driver must have a long term storage location in which to store the identifiers of the devices, since the identifiers are required for communication with the devices (Par 64).

3. Applicant presents similar arguments with respect to claims 2 and 6. Therefore, those arguments are not persuasive for the same reasons as discussed above with regard to claim 1.

4. With regard to amended claim 4, and Applicant's assertion that Ben-Dor does not disclose "a bridging task for receiving USB packets from one or more USB devices and for passing said USB packets and addressing information to said network protocol stack", the Examiner respectfully disagrees. Ben-Dor discloses a bridging task (USB tunneling redirector) for receiving USB packets (URBs) from one or more USB devices and for passing said USB packets and addressing information (Par 69) to said network protocol stack (Par 73).

5. With regard to claim 11, and Applicant's request that a reference be cited to show that a connection to the Internet via a public television cable is old and well known in the art, Gottfurcht et al. (US 6,611,881) has been provided, which clearly shows that a television cable is a known means of connection to the Internet; "data is transmitted to the profiler server over the internet via *any connection to the internet known to those skilled in the art*, including, but not limited to a *television cable*, a satellite connection, a digital subscriber line (DSL), T1 lines, etc." (Col 5, Lines 39-43).

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 4,5,34, and 35 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

8. With regard to claims 4 and 34, the limitation "said USB packets and addressing information" is unclear. It is unclear if the addressing information is intended to be the network address previously recited or new addressing information which differs from the network address. It has been interpreted as being addressing information related to the USB devices. The Examiner recommends that the claim be amended to recite "USB device addressing information and said USB packets" or "said USB packets and said

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network address", or a similar recitation, depending on the subject matter Applicant intends to claim.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

10. Claims 1-5, and 31-35 are rejected under 35 U.S.C. 102(e) as being anticipated by Ben-Dor et al (US Publication Number 2002/0141418), hereinafter referred to as Ben-Dor.

11. The Ben-Dor patent shows a tunneling feature between a bus and a network. A local bus (202) is connected to an Ethernet network (201) via a Remote Peripheral Server (RPS 205). Remotely located network hosts (204) encapsulate and decapsulate (tunnel) local bus transfers and have special software drivers installed to support tunneling on the network hosts. (See abstract). Regarding claims 1 and 31, Ben-Dor shows a USB remote host control driver (fig. 1C, 204, and paragraph 46), comprising:

- a connection to a network (201), said network further connecting to one or more USB device adapters (RPS 205), each of said device adapters (205) having a discrete network address (fig. 1c, and paragraphs 41-42) ;
- a network protocol stack, said protocol stack for encapsulating USB packets in network
- packets and for decapsulating USB packets from network packets (paragraphs 42 and 71); and
- a memory for storing the network address of each of said device adapters and for storing an identification of each USB device connected to each of said device adapters (paragraphs 63-64 and 156-172).

12. Regarding claims 2 and 32, Ben-Dor shows a polling routine, said polling routine contacting each of said device adapters, identifying each of said USB devices, and storing the identifications in said memory (paragraphs 164-165).

13. Regarding claims 3, 5, 33 and 35, Ben-Dor shows the network packets are Ethernet packets (paragraphs 90 and 91).

14. Regarding claims 4 and 34, Ben-Dor shows a USB device adapter (RPS 205) comprising:

- one or more USB ports (paragraph 41 and 42);

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- a connection to a network (201), said network connected to a USB remote host control driver (204) (fig. 1c and paragraph 60);
- a network address (IP address, paragraph 42); and
- a network protocol stack, said protocol stack for encapsulating USB packets in network packets and for decapsulating USB packets from network packets (paragraph 71).
- a bridging task (USB tunneling redirector) for receiving USB packets (URBs) from one or more USB devices and for passing said USB packets and addressing information (Par 69) to said network protocol stack (Par 73).

Claim Rejections - 35 USC § 103

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

16. Claims 6-12 and 36-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ben-Dor in view of Krishnan (US 6,157,950).

17. Regarding claims 6 and 36, Ben-Dor shows a USB remote host control driver (204), having:

- (a) a connection to a local network (201), said local network further connecting to one or more USB device adapters (205), each of said device adapters having a discrete network address (paragraph 42);
- (b) a local network protocol stack, said protocol stack for encapsulating USB packets in local network packets and for decapsulating USB packets from local network packets (paragraph 71);
- (c) a memory for storing the network address of each of said device adapters and for storing an identification of each USB device connected to each of said device adapters (paragraphs 63-64 and 156-172) ; and
- (d) a polling routine, said polling routine contacting each of said device adapters, identifying each of said USB devices, and storing the identifications in said memory (paragraph 164-165).

Although Ben-Dor shows substantial features of the claimed invention, Ben-Dor does not particularly point an *Internet gateway connection to the Internet*. Nonetheless this feature is well known in the art, and would have been an obvious modification to the system disclosed by Ben-Dor as evidenced by Krishnan.

In an analogous art, Krishnan discloses features for connecting peripheral devices to a local area network and providing an Internet gateway function supporting connection to the Internet (see summary, and col. 3 lines 21-28).

Given this feature, a person of ordinary skill in the art would have readily recognized the desirability and advantages of modifying the system shown by Ben-Dor to employ the features shown by Krishnan in order to provide a remote user located at a remote

location a method for accessing devices and peripherals from the remote location over the Internet (see Krishnan col. 1 lines 46-64).

18. Regarding claims 7 and 37, Ben-Dor shows the local network is an Ethernet (fig. 1, 202, paragraphs 90-91).

19. Regarding claims 8 and 38, Ben-Dor shows a processor for receiving unencapsulated USB packets from the protocol stack (paragraph 71 lines 14-17).

20. Regarding claims 9 and 39, Ben-Dor shows a connection to a local video monitor (fig. 1c, 204).

21. Regarding claims 10 and 40, Krishnan shows a gateway connection to a local telephone (col. 1 lines 33-36).

22. Regarding claims 11 and 41, a connection to a public television cable is well known in the art, and would have been an obvious modification to the system disclosed by Ben-Dor and Krishnan, as evidenced by knowledge well-known in the art. A person of ordinary skill would have realized an Internet connection via a public television cable is a well known feature in the networking art. Therefore, Examiner takes Official Notice (see MPEP §2144.03) that "gateway connection to a public television cable" in a

computer networking environment was well known in the art at the time the invention was made. (Also see discussion above in "Reponse to Arguments").

23. Regarding claims 12 and 42, Krishnan shows a gateway connection to a public telephone network (fig. 8, col. 11 lines 41-55).

Conclusion

24. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

25. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aaron Strange whose telephone number is 571-272-3959. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glen Burgess can be reached on 571-272-3949. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AS
8/9/2005


ABDULLAH, SALAH
Primary Examiner